AMENDMENTS TO THE CLAIMS

1. (Currently Amended): A decision tree based data mining system; comprising:

a multiplicity of processors,

an object oriented pattern recognition algorithms module for pattern recognition, comprising:

a decision tree system including

an object oriented module to read said data and partition said data files among said multiplicity of processors,

an object oriented module to parallel sort said data using said multiplicity of processors, if sorting is necessary,

an object oriented module to determine the best manner to split said data according to some criterion, and

an object oriented module to split said data, and

a data mining system, having

a storage module, and

an object oriented linking module for linking said decision tree system and said storage module.

2. (Original): The decision tree system of claim 1 wherein said object oriented module to determine the best manner to split said data is based on tests on single attributes of said data.

3. (Original): The decision tree system of claim 1 wherein said object oriented module to determine the best manner to split said data is based on a OC1 algorithm.

4. (Original): The decision tree system of claim 1 wherein said object oriented module to determine the best manner to split said data is based on a CART-LC algorithm.

5. (Original): The decision tree system of claim 1 wherein said object oriented module to determine the manner to best split said data is based on an evolutionary algorithm.

6. (Original): The decision tree system of claim 1 wherein said criterion is the Gini index.

7. (Original): The decision tree system of claim 1 wherein said criterion is the information gain.

8. (Original): The decision tree system of claim 1 wherein said criterion is the information ratio.

9. (Original): The decision tree system of claim 1 wherein said criterion is the twoing rule.

10. (Currently Amended): A decision tree based data mining system, comprising:

a multiplicity of processors,

an object oriented pattern recognition algorithms module for pattern recognition, comprising:

a decision tree system including

a parallel object oriented module to read said data and partition said data files among said multiplicity of processors, said data containing data items with features,

a parallel object oriented module to parallel sort said data using said multiplicity of processors, if sorting is necessary,

a parallel object oriented module to determine the best manner to split said data into subsets according to some criterion,

a parallel object oriented module to split said data, and

a data mining system, having

a storage module to store the features for each data item,

a parallel object oriented linking module for linking said decision tree system and said storage module.

11. (Original): The decision tree system of claim 10 wherein said parallel object oriented module to determine the best manner to split said data is based on tests on single attributes of said data.

12. (Original): The decision tree system of claim 10 wherein said parallel object oriented module to determine the best manner to split said data is based on a OC1 algorithm.

13. (Original): The decision tree system of claim 10 wherein said parallel object oriented module to determine the best manner to split said data is based on a CART-LC algorithm.

14. (Original): The decision tree system of claim 10 wherein said parallel object oriented module to determine the manner to best split said data is based on an evolutionary algorithm.

15. (Original): The decision tree system of claim 10 wherein said criterion is the Gini index.

16. (Original): The decision tree system of claim 10 wherein said criterion is the information gain.

17. (Original): The decision tree system of claim 10 wherein said criterion is the information ratio.

18. (Original): The decision tree system of claim 10 wherein said criterion is the twoing rule.

19. (Currently Amended): A decision tree based data mining method utilizing a multiplicity of processors, comprising the steps of:

providing data files containing objects having relevant features,

recognizing patterns among said objects based upon said relevant features,

creating a decision tree system,

reading said data from said data files using an object oriented module,

partitioning said data files among said multiplicity of processors,

parallel sorting said data using an object oriented module and said multiplicity of processors if sorting is necessary,

determining the best manner to split said data into subsets according to some criterion using an object oriented module, and

splitting said data using an object oriented module.

20. (Original): The decision tree method of claim 19 wherein said parallel object oriented module to determine the best manner to split said data is based on tests on single attributes of said data.

21. (Original): The decision tree method of claim 19 wherein said parallel object oriented module to determine the best manner to split said data is based on a OC1 algorithm.

22. (Original): The decision tree method of claim 19 wherein said parallel object oriented module to determine the best manner to split said data is based on a CART-LC algorithm.

23. (Original): The decision tree method of claim 19 wherein said parallel object oriented module to determine the manner to best split said data is based on an evolutionary algorithm.

24. (Original): The decision tree method of claim 19 wherein said criterion is the Gini index.

25. (Original): The decision tree method of claim 19 wherein said criterion is the information gain.

26. (Original): The decision tree method of claim 19 wherein said criterion is the information ratio.

27. (Original): The decision tree method of claim 19 wherein said criterion is the twoing rule.

28. (Currently Amended): A decision tree based data mining method utilizing a multiplicity of processors, comprising the steps of:

reading and displaying data files, said data files containing objects having at least one feature,

partitioning said data files among said multiplicity of processors,

identifying said objects in said data files,

extracting at least one feature for each of said objects

recognizing patterns among said objects based upon said features ~~.~~ , and

creating a decision tree ~~by~~ , said decision tree including

reading said data,

parallel sorting said data using said multiplicity of processors, if sorting is necessary,

determining the best manner to split said data into subsets according to some criterion, and

splitting said data.

29. (Original): The decision tree method of claim 28 wherein said step of determining the best manner to split said data is based on tests on single attributes of said data.

30. (Original): The decision tree method of claim 28 wherein said step of determining the best manner to split said data is based on a OC1 algorithm.

31. (Previously Presented): The decision tree method of claim 28 wherein said step of determining the best manner to split said data is based on a CART-LC algorithm.

32. (Original): The decision tree method of claim 28 wherein said step of determining the manner to best split said data is based on an evolutionary algorithm.

33. (Original): The decision tree method of claim 28 wherein said criterion is the Gini index.

34. (Original): The decision tree method of claim 28 wherein said criterion is the information gain.

35. (Original): The decision tree method of claim 28 wherein said criterion is the information ratio.

36. (Original): The decision tree method of claim 28 wherein said criterion is the twoing rule.